

CLAIMS

1.- The use of extracts and compounds of plants from the *Allium* genus as preservatives for the food and agrifood industry, of the type intended to be used as antimicrobial preservatives for the food and agrifood industry, in foods intended to be consumed by humans and animals, both in the foods and very particularly on the surface thereof, as well as for the treatment of plants being harvested and for post-harvest treatments of agricultural products such as fruits, garden produce, seeds, etc., and for disinfecting facilities, equipment and the environment, particularly in the food and agrifood industry, using compounds of plants from the *Allium* genus, thiosulfinates in general, thiosulfonates in general, 3-vinyl-4*H*-1,2-dithiin and 2-vinyl-4*H*-1,3-dithiin, using an ajoene compound consisting of a mixture of E and Z isomers of each one of them separately as an antimicrobial preservative for the food and agrifood industry in foods intended for being consumed by man and/or animals, both in the foods and very particularly on the surface thereof, as well as in post-harvest treatments of agricultural products such as fruits, garden produce, seeds, etc., and for disinfecting facilities, equipment and the environment, particularly in the food and agrifood industry, as well as the use of the mixtures of the products resulting from the decomposition or transformation of thiosulfinates, as well as the different fractions thereof, as antimicrobial preservatives of foods intended for being consumed by man and animals, both in the foods and very particularly on the surface thereof, as well as for the treatment of plants being harvested and for post-harvest treatments of agricultural products such as fruits, garden produce, seeds, etc., and for disinfecting facilities, equipment and the

environment, particularly in the food and agrifood industry, using as starting materials for producing said mixtures of products pure thiosulfinates or mixtures thereof, these thiosulfinates being dissolved
5 in a solvent or mixture of solvents of any type (organic, inorganic and/or water) and under any type of conditions for producing decomposition, either temperature conditions, concentration, pressure, pH conditions, etc., and however long the transformation
10 or decomposition lasts or is maintained, and the use of extracts from plants of the *Allium* genus in post-harvest treatments of agricultural products such as fruits, garden produce, seeds, etc., and for disinfecting facilities, equipment and the environment,
15 particularly in the food and agrifood industry, characterized in that it allows their application within the field of coatings of any type, regardless of the fact that they initially have a liquid form, for their application as liquid preparations, such as
20 emulsions, suspensions, dispersions or in solutions, or they may be solid coatings of any class, the purpose of which is to envelope or be in contact with foods, such as for example polyethylene, polypropylene, paper, waxes (natural or not), etc.

25 2.- The use of extracts and compounds of plants from the *Allium* genus as antimicrobial preservatives for the food and agrifood industry according to the fields of application mentioned in the first section of claim 1, characterized in that the extracts and/or
30 compounds can be incorporated into any type of encapsulation, and this encapsulation can in turn be incorporated either in the food or on the surface thereof, or else it may be incorporated in a coating according to claim 1.

35 3.- The use of compounds of plants from the *Allium*

genus as flavors or flavoring agents in the food and
agrifood industry according to the fields of
application mentioned in the first section of claim 1,
in a food, on the surface thereof, included in coatings
5 or encapsulations according to claim 2.